

WHAT IS CLAIMED IS:

1. A solar cell assembly comprising:
a solar cell having opposite surfaces one of which functions as a light-receiving surface;
a first lead electrode bonded to an end portion of said one of said opposite surfaces of said solar cell;
a second lead electrode bonded to a substantially entire portion of the other of said opposite surfaces; and
a metallic sheet which is bonded to one of opposite surfaces of said second lead electrode which is remote from said solar cell, said metallic sheet having a lower coefficient of thermal expansion than said second lead electrode.

2. The solar cell assembly according to claim 1, wherein said metallic sheet has a major surface area larger than a surface area of said opposite surfaces of said solar cell, and includes opposite end portions which extend from respective opposite ends of said solar cell in respective opposite directions in which said second lead electrode extends.

3. A photovoltaic electric generator of concentrator type comprising:

an array of a plurality of solar cell assemblies each including a solar cell, and electrically conductive members in the form of metallic foils connected to said solar cell;

a heat dissipating layer formed of a synthetic resin

containing a thermally conductive filler; and

a base plate to which each of said solar cell assemblies is fixed through said heat dissipating layer,

and wherein said solar cell of said each solar cell assembly is embedded in said heat dissipating layer.

4. The photovoltaic electric generator of concentrator type according to claim 3, wherein said heat dissipating layer is formed of a material selected from a group consisting of: a thermoplastic material; and a non-thermoplastic material a modulus of elasticity or coefficient of viscosity of which is lowered to a minimal value during a rise of a temperature of the non-thermoplastic material within a predetermined range in the process of heating the material to cure the non-thermoplastic material.

5. The photovoltaic electric generator of concentrator type according to claim 3, wherein said solar cell has a light-receiving surface, and said electrically conductive members in the form of metallic foils extend outwardly from a periphery of said solar cell in a plane parallel to said light receiving surface.

6. The photovoltaic electric generator of concentrator type according to claim 3, wherein said solar cell has a light-receiving surface, and each of said plurality of solar cell assemblies further includes a sealing layer which is formed of

a transparent resin and which covers said light-receiving surface.

7. The photovoltaic electric generator of concentrator type according to claim 6, wherein said sealing layer has a light-receiving surface, and each of said plurality of solar cell assemblies further includes a transparent glass plate which covers said light-receiving surface of said sealing layer.

8. The photovoltaic electric generator of concentrator type according to claim 3, wherein said solar cell has a light-receiving surface and at least one electrode formed on said light-receiving surface, and said electrically conductive members in the form of metallic foils include at least one foil which is soldered to said at least one electrode such that said at least one foil is inclined at a predetermined angle with respect to an upper surface of said at least one electrode.

9. A photovoltaic electric generator of concentrator type comprising:

an array of a plurality of solar cell assemblies each including a solar cell, and electrically conductive members in the form of metallic foils;

a heat dissipating layer formed of a synthetic resin containing a thermally conductive filler; and

a base plate to which each of said solar cell assemblies is fixed through said heat dissipating layer,

and wherein said heat dissipating layer consists of a first

layer, and a second layer located on one of opposite sides of said first layer which is remote from said base plate, said second layer being formed of a material selected from a group consisting of: a thermoplastic material; and a non-thermoplastic material a modulus of elasticity or coefficient of viscosity of which is lowered below that of said first layer during a rise of a temperature of the non-thermoplastic material within a predetermined range in the process of heating of the material to cure the non-thermoplastic material.

10. The photovoltaic electric generator of concentrator type according to claim 9, wherein said first layer of said heat dissipating layer is formed of a thermosetting resin, and said non-thermoplastic material of said second layer is a thermosetting resin.

11. The photovoltaic electric generator of concentrator type according to claim 9, wherein said first layer of said heat dissipating layer is formed of a solid epoxy resin, while said second layer is formed of a liquid epoxy resin.

12. The photovoltaic electric generator of concentrator type according to claim 9, wherein said solar cell has a light-receiving surface, and said electrically conductive members in the form of metallic foils extend outwardly from a periphery of said solar cell in a plane parallel to said light receiving surface.

13. The photovoltaic electric generator of concentrator type according to claim 9, wherein said solar cell has a light-receiving surface, and each of said plurality of solar cell assemblies further includes a sealing layer which is formed of a transparent resin and which covers said light-receiving surface.

14. The photovoltaic electric generator of concentrator type according to claim 13, wherein said sealing layer has a light-receiving surface, and each of said plurality of solar cell assemblies further includes a transparent glass plate which covers said light-receiving surface of said sealing layer.

15. The photovoltaic electric generator of concentrator type according to claim 9, wherein said solar cell has a light-receiving surface and at least one electrode formed on said light-receiving surface, and said electrically conductive members in the form of metallic foils include at least one foil which is soldered to said at least one electrode such that said at least one foil is inclined at a predetermined angle with respect to an upper surface of said at least one electrode.

16. A photovoltaic electric generator of concentrator type comprising:

an array of a plurality of solar cell assemblies each including a solar cell, and electrically conductive members in the form of metallic foils;

a heat dissipating layer formed of a synthetic resin containing a thermally conductive filler; and

a base plate to which each of said solar cell assemblies is fixed through said heat dissipating layer,

and wherein said metallic foils have a plurality of voids and are at least partially embedded in said heat dissipating layer such that said plurality of voids are filled with a material of said heat dissipating layer.

17. The photovoltaic electric generator of concentrator type according to claim 16, wherein said solar cell has a light-receiving surface, and said electrically conductive members in the form of metallic foils extend outwardly from a periphery of said solar cell in a plane parallel to said light receiving surface.

18. The photovoltaic electric generator of concentrator type according to claim 16, wherein said solar cell has a light-receiving surface, and each of said plurality of solar cell assemblies further includes a sealing layer which is formed of a transparent resin and which covers said light-receiving surface.

19. The photovoltaic electric generator of concentrator type according to claim 18, wherein said sealing layer has a light-receiving surface, and each of said plurality of solar cell assemblies further includes a transparent glass plate which covers said light-receiving surface of said sealing layer.

20. The photovoltaic electric generator of concentrator type according to claim 16, wherein said solar cell has a light-receiving surface and at least one electrode formed on said light-receiving surface, and said electrically conductive members in the form of metallic foils include at least one foil which is soldered to said at least one electrode such that said at least one foil is inclined at a predetermined angle with respect to an upper surface of said at least one electrode.